

AMENDMENTS TO CLAIMS

The following is a complete listing of the claims presently in the application, wherein Claims 1, 6-8, 13-14, 16, and 21-22 are amended and new Claims 23-44 are added:

1. (currently amended) A fixative for ink-jet printing, said fixative for overcoating at least one ink printed on a print medium, each said ink printed from a separate printhead, said fixative comprising a two-part system and consisting essentially of (1) at least one reactive monomer or oligomer, said reactive monomer or oligomer ~~selected from the group consisting of iso-cyanates and epoxy-terminated oligomers~~ comprising at least one iso-cyanate, optionally in a vehicle, and (2) at least one second component ~~selected from the group consisting of polyols and polyvinyl alcohols~~ comprising at least one polyol plus at least one base catalyst, optionally in a vehicle, said at least one reactive monomer or oligomer contained separately from said at least one second component, said at least one reactive monomer or oligomer reacting with said at least one second component on said print medium to form a hydrophobic polymer overcoating said printed ink, said polymer having a glass transition temperature within a range of -50°C to +100°C and a melting temperature within a range of 30°C to 150°C.

2. (original) The fixative of Claim 1 wherein at least three color inks are each associated with a separate printhead.

3. (original) The fixative of Claim 2 wherein said at least three color inks are cyan, yellow, and magenta.

4. (original) The fixative of Claim 2 wherein three color inks are associated with three separate printheads and one black ink is associated with a fourth separate printhead.

5. (original) The fixative of Claim 1 wherein said monomer or oligomer has a concentration within a range of about 0.1 to 100 wt%.

6. (currently amended) The fixative of Claim 1 wherein said polyol or ~~polyvinyl alcohol~~ has a concentration within a range of about 0.1 to 100 wt%.

7. (currently amended) The fixative of Claim 1 wherein said polyol or ~~polyvinyl alcohol~~ is reacted in a 1:1 stoichiometric ratio, or excess of said polyol or ~~polyvinyl alcohol~~, with said reactive monomer or oligomer.

8. (currently amended) A method for printing on a print media, including printing at least one ink-jet ink on said print media and then depositing a fixative on said at least one ink-jet ink, said method comprising:

providing a first container containing at least one first reactive component ~~selected from the group consisting of~~ comprising at least one iso-cyanate monomers monomer or oligomer and epoxy-terminated oligomers, optionally in a vehicle;

providing a second container containing at least one second component ~~selected from the group consisting of polyols~~ comprising at least one polyol and polyvinyl alcohols, plus at least one base catalyst, optionally in a vehicle;

in either order, depositing said at least one first reactive component and said at least one second component on said printed ink-jet ink; and

allowing reaction to proceed between said at least one first reactive component and said at least one second reactive component on said print media to form a hydrophobic polymer, said polymer having a glass transition temperature within a range of -50°C to +100°C and a melting temperature within a range of 30°C to 150°C to thereby fix said at least one ink-jet ink on said print media.

9. (original) The method of Claim 8 wherein at least three color inks, each associated with separate printheads, are provided.

10. (original) The method of Claim 9 wherein said at least three color inks are cyan, yellow, and magenta.

11. (original) The method of Claim 9 wherein three color inks associated with three separate printheads and one black ink associated with a fourth separate printhead are provided.

12. (original) The method of Claim 8 wherein said monomer or oligomer has a concentration in said first container within a range of about 0.1 to 100 wt%.

13. (currently amended) The method of Claim 8 wherein said polyol or ~~polyvinyl alcohol~~ has a concentration in said second container within a range of about 0.1 to 100 wt%.

14. (currently amended) The method of Claim 8 wherein said polyol or ~~polyvinyl alcohol~~ is reacted in a 1:1 stoichiometric ratio, or excess of said polyol or ~~polyvinyl alcohol~~, with said reactive monomer or oligomer.

15. (original) The method of Claim 8 wherein at least one of said at least one first reactive component and said at least one second component is printed through a printhead onto said printed ink-jet ink.

16. (currently amended) In combination, (a) a two-part fixative, including (1) at least one first reactive component ~~selected from the group consisting of~~ comprising at least one iso-cyanate monomers monomer or oligomer and epoxy-terminated oligomers, optionally in a vehicle, and (2) at least one second component ~~selected from the group consisting of polyols~~ comprising at least one polyol and polyvinyl alcohols, plus at least one base catalyst, optionally in a vehicle; and (b) at least one ink-jet ink printed on a print media, said at least one first reactive component and said at least one second reactive component reacting on said printed ink-jet ink to form a hydrophobic polymer, said polymer having a glass transition temperature within a range of -50°C to +100°C and a melting temperature within a range of 30°C to 150°C to thereby fix said at least one ink-jet ink on said print media.

17. (original) The combination of Claim 16 wherein at least three color inks, each associated with separate printheads, are provided.

18. (original) The combination of Claim 17 wherein said at least three color inks are cyan, yellow, and magenta.

19. (original) The combination of Claim 17 wherein three color inks associated with three separate printheads and one black ink associated with a fourth separate printhead are provided.

20. (original) The combination of Claim 16 wherein said monomer or oligomer has a concentration within a range of about 0.1 to 100 wt%.

21. (currently amended) The combination of Claim 16 wherein said polyol or ~~polyvinyl alcohol~~ has a concentration within a range of about 0.1 to 100 wt%.

22. (currently amended) The combination of Claim 16 wherein said polyol or ~~polyvinyl alcohol~~ is reacted in a 1:1 stoichiometric ratio, or excess of said polyol or ~~polyvinyl alcohol~~, with said reactive monomer or oligomer.

23. (new) A fixative for ink-jet printing, said fixative for overcoating at least one ink printed on a print medium, each said ink printed from a separate printhead, said fixative comprising a two-part system and consisting essentially of (1) at least one reactive oligomer, said reactive oligomer comprising at least one epoxy-terminated oligomer, optionally in a vehicle, and (2) at least one second component comprising at least one polyol plus at least one base catalyst, optionally in a vehicle, said at least one reactive oligomer contained separately from said at least one second component, said at least one reactive oligomer reacting with said at least one second component on said print medium to form a hydrophobic polymer overcoating said printed ink, said polymer having a glass transition temperature within a range of -50°C to +100°C and a melting temperature within a range of 30°C to 150°C.

24. (new) The fixative of Claim 23 wherein at least three color inks are each associated with a separate printhead.

25. (new) The fixative of Claim 24 wherein said at least three color inks are cyan, yellow, and magenta.

26. (new) The fixative of Claim 24 wherein three color inks are associated with three separate printheads and one black ink is associated with a fourth separate printhead.

27. (new) The fixative of Claim 23 wherein said oligomer has a concentration within a range of about 0.1 to 100 wt%.

28. (new) The fixative of Claim 23 wherein said polyol has a concentration within a range of about 0.1 to 100 wt%.

29. (new) The fixative of Claim 23 wherein said polyol is reacted in a 1:1 stoichiometric ratio, or excess of said polyol, with said reactive oligomer.

30. (new) A method for printing on a print media, including printing at least one ink-jet ink on said print media and then depositing a fixative on said at least one ink-jet ink, said method comprising:

providing a first container containing at least one first reactive component comprising at least one epoxy-terminated oligomer, optionally in a vehicle;

providing a second container containing at least one second component comprising at least one polyol, plus at least one base catalyst, optionally in a vehicle;

in either order, depositing said at least one first reactive component and said at least one second component on said printed ink-jet ink; and

allowing reaction to proceed between said at least one first reactive component and said at least one second reactive component on said print media to form a hydrophobic polymer, said polymer having a glass transition temperature within

a range of -50°C to +100°C and a melting temperature within a range of 30°C to 150°C to thereby fix said at least one ink-jet ink on said print media.

31. (new) The method of Claim 30 wherein at least three color inks, each associated with separate printheads, are provided.

32. (new) The method of Claim 31 wherein said at least three color inks are cyan, yellow, and magenta.

33. (new) The method of Claim 31 wherein three color inks associated with three separate printheads and one black ink associated with a fourth separate printhead are provided.

34. (new) The method of Claim 30 wherein said oligomer has a concentration in said first container within a range of about 0.1 to 100 wt%.

35. (new) The method of Claim 30 wherein said polyol has a concentration in said second container within a range of about 0.1 to 100 wt%.

36. (new) The method of Claim 30 wherein said polyol is reacted in a 1:1 stoichiometric ratio, or excess of said polyol, with said reactive oligomer.

37. (new) The method of Claim 30 wherein at least one of said at least one first reactive component and said at least one second component is printed through a printhead onto said printed ink-jet ink.

38. (new) In combination, (a) a two-part fixative, including (1) at least one first reactive component comprising at least one epoxy-terminated oligomer, optionally in a vehicle, and (2) at least one second component comprising at least one polyol, plus at least one base catalyst, optionally in a vehicle; and (b) at least one ink-jet ink printed on a print media, said at least one first reactive component and said at least one second reactive component reacting on said printed ink-jet ink to form a hydro-

phobic polymer, said polymer having a glass transition temperature within a range of -50°C to +100°C and a melting temperature within a range of 30°C to 150°C to thereby fix said at least one ink-jet ink on said print media.

39. (new) The combination of Claim 38 wherein at least three color inks, each associated with separate printheads, are provided.

40. (new) The combination of Claim 39 wherein said at least three color inks are cyan, yellow, and magenta.

41. (new) The combination of Claim 39 wherein three color inks associated with three separate printheads and one black ink associated with a fourth separate printhead are provided.

42. (new) The combination of Claim 38 wherein said oligomer has a concentration within a range of about 0.1 to 100 wt%.

43. (new) The combination of Claim 38 wherein said polyol has a concentration within a range of about 0.1 to 100 wt%.

44. (new) The combination of Claim 38 wherein said polyol is reacted in a 1:1 stoichiometric ratio, or excess of said polyol, with said reactive oligomer.